

Claims

1. Method for connecting several switches, operating elements, signaling elements or similar, to be supplied with electric energy, with a control unit mounted by automated means onto a structural component (1), in particular, a vehicle door, wherein electric energy is transmitted through conductors (7) in particular, flexible circuit boards comprising a plurality of signaling conductors, which are arranged on a substantially flat ribbon, on which several conductors are arranged independently of each other, each of which capable of branching out into a single element (14) such as a switch, operating element or signaling element (3, 4, 5, 6, 8, 9, 10, 11, 12) and wherein the other ends of the conductors (7) are connected to a control unit (2), characterized by the following steps: preparing a support element (13) for receiving all single elements (14), such as the switch, operating elements, signaling elements or similar conductors, and the control unit, collectively representing the conductor assembly; positioning the single elements (14) on the support element (13), connecting the single elements (14) in particular, the switch, operating elements, signaling elements or similar with the first end portions of the conductors (15) and connecting the control unit with the corresponding other end portions of the conductor (16); conveying the support element (13) with all load elements (17) to a subsequent treatment station for fastening the end portions of the conductors (16) to the control unit (2) and optionally fastening the end portions of conductor (15) to the single elements (14), thereby forming the subassembly (17); preparing the structural component (1) for installation of the subassembly (17) through attachment means (18), and positioning the structural component (1) and the subassembly (17) relative to each other into their installing location.

2. Method according to claim 1, characterized in that the support element (13) has a three-dimensional configuration, which mirrors the position of all elements in their location at the structural component.
3. Method according to claim 1, characterized in that the end portions of conductors (15, 16) are attached by means of a soldering process.
4. Method according to claim 1, characterized in that the soldering process is a laser soldering process.
5. Method according to claim 1, characterized in that the positioning of the structural component (1) is carried out through placement of the structural component (1) onto the subassembly (17).
6. Method according to claim 1, characterized in that the positioning of the structural component (1) and the subassembly (17) is carried out through positioning the subassembly (17).
7. Method according to claim 1, characterized in that the subassembly (17) is positioned onto the structural component (1) by means of a gripper device.
8. Method according to claims 6-8, characterized in that during the positioning steps, attachment means (18) are engaged.
9. Method according to claim 1, characterized in that the attachment means (18) are screws, rivets, adhesives, clamps and similar.
10. Method according to claim 1, characterized in that positioning aids are provided at the support element (13).

11. Method according to claim 1, characterized in that the positioning aids are channels (19).
12. Method according to claim 1, characterized in that the positioning aids are projections (20).